

ABSTRACT

A security device having multiple security features is used with an item, such as a secure document, ticket, label or tag, to authenticate the item and/or encode data pertaining to the item. One example of the security device includes a carrier substrate, a metallic layer disposed on the carrier substrate, and a magnetic layer disposed on the metallic layer in substantial registration with at least a portion of the metallic layer, thereby providing both metallic security features and magnetic security features. The metallic layer and the magnetic layer also form graphic or visually identifiable indicia on the carrier substrate to provide a visual security feature. According to one method, the metallic layer is applied to the carrier substrate, the magnetic layer is applied to the metallic layer, and the layers are etched to form the graphic indicia. The magnetic layer can, in one embodiment, include a magnetic chemical resist that is printed on the metallic layer in the form of the graphic indicia. The magnetic security features use one or more magnetic characteristics, such as the level of magnetism and decay rate characteristic of soft magnetics, to authenticate and/or to encode data. The magnetic security feature may also include magnetic tracks for recording data. The metallic security features use different lengths of conductive regions to authenticate and/or encode data.